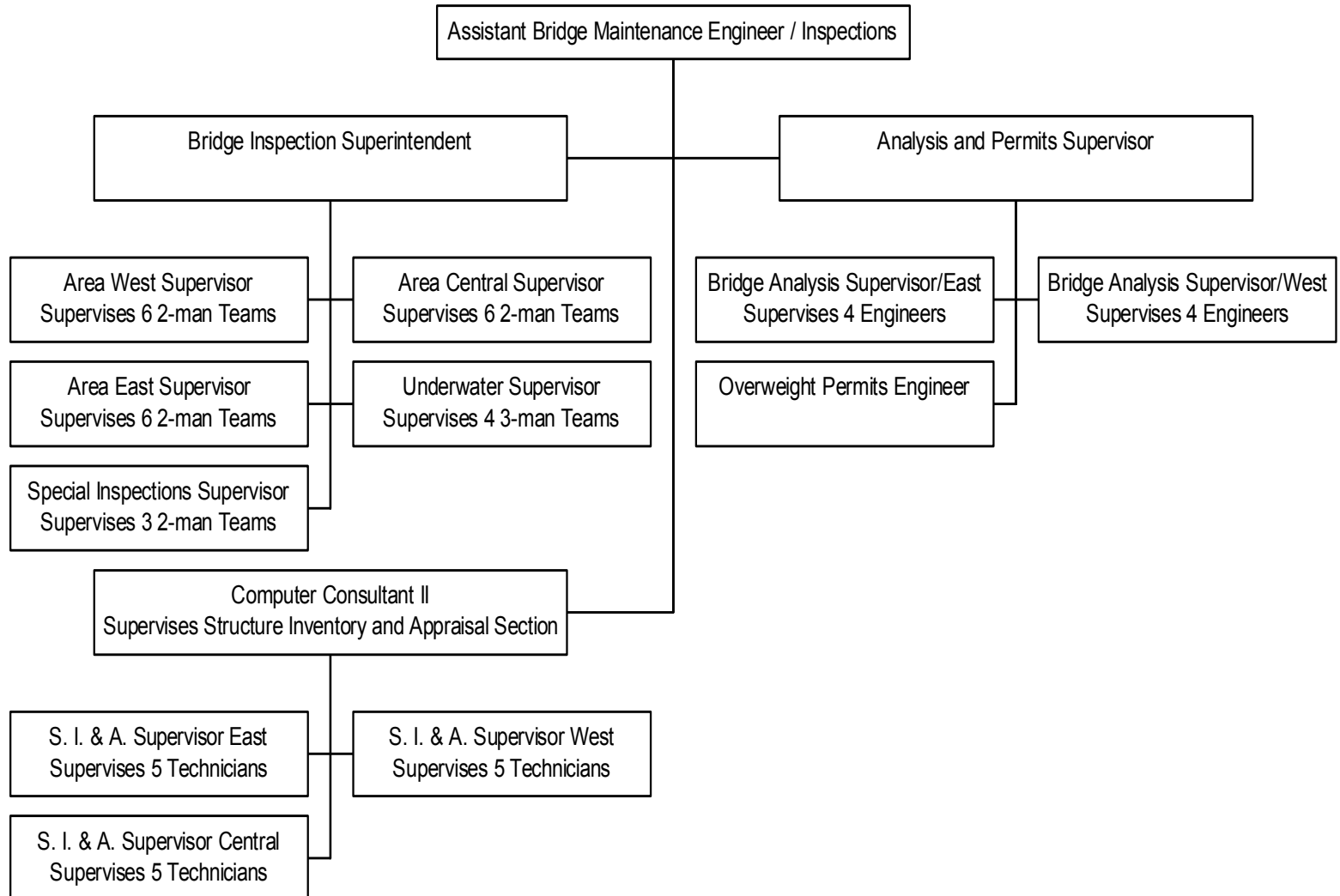


Traffic



Regulatory Warnings and Load Posting Signs

Electronic Code of Federal Regulations (e-CFR)

e-CFR Data is current as of May 7, 2007

Title 23: Highways

[PART 650—BRIDGES, STRUCTURES, AND HYDRAULICS](#)

[Subpart C—National Bridge Inspection Standards](#)

[Browse Previous](#) | [Browse Next](#)

§ 650.313 Inspection procedures.

- (a) Inspect each bridge in accordance with the inspection procedures in the AASHTO Manual (incorporated by reference, *see* §650.317).
- (b) Provide at least one team leader, who meets the minimum qualifications stated in §650.309, at the bridge at all times during each initial, routine, in-depth, fracture critical member and underwater inspection.
- (c) Rate each bridge as to its safe load-carrying capacity in accordance with the AASHTO Manual (incorporated by reference, *see* §650.317). Post or restrict the bridge in accordance with the AASHTO Manual or in accordance with State law, when the maximum unrestricted legal loads or State routine permit loads exceed that allowed under the operating rating or equivalent rating factor.
- (d) Prepare bridge files as described in the AASHTO Manual (incorporated by reference, *see* §650.317). Maintain reports on the results of bridge inspections together with notations of any action taken to address the findings of such inspections. Maintain relevant maintenance and inspection data to allow assessment of current bridge condition. Record the findings and results of bridge inspections on standard State or Federal agency forms.
- (e) Identify bridges with FCMs, bridges requiring underwater inspection, and bridges that are scour critical.
 - (1) Bridges with fracture critical members. In the inspection records, identify the location of FCMs and describe the FCM inspection frequency and procedures. Inspect FCMs according to these procedures.
 - (2) Bridges requiring underwater inspections. Identify the location of underwater elements and include a description of the underwater elements, the inspection frequency and the procedures in the inspection records for each bridge requiring underwater inspection. Inspect those elements requiring underwater inspections according to these procedures.

14. REGULATORY AND WARNING SIGN NOTICE

This notice should be emailed to the Area Supervisor or Special Inspection Supervisor, and to the SI&A Squad Leader on the day the inspection is made. Use the posting shown on the data card printout to determine if a posting notice should be issued. Indicate on the notice the type sign needed and the number of signs required. The Inventory Section will check the current posting requirement before the notice is sent to the Division Sign Supervisor. Do not indicate the posting tonnage requirement or the location on the bridge. If only one sign of a one-lane bridge sign is in place with a clear roadway width greater than 16 ft., send a sign notice recommending an additional one lane bridge sign be added instead of removing the existing sign. Refer to the "Guide for Signs Used at Bridges" for additional information.

Regulatory Sign Report for Division 1 All Notices

SIGNS TO ERECT										SIGNS TO REMOVE					
COUNTY	BRIDGE	NOTICE	AGE DAYS	WT LMT	DELIN	NARROW	ONE LANE	LOW CLR	BRG CLOSED	WT LMT	DELIN	NARROW	ONE LANE	LOW CLR	BRG CLOSED
CHOWAN	000001	4/23/2007	11	2						2					
WASHINGTON	830085	4/16/2007	18		2										
TOTALS				2	2					2					

Regulatory Sign Report for Division 2 All Notices

COUNTY	BRIDGE	NOTICE	SIGNS TO ERECT							SIGNS TO REMOVE						
			AGE DAYS	WT LMT	DELIN	NARROW	ONE LANE	LOW CLR	BRG CLOSED	WT LMT	DELIN	NARROW	ONE LANE	LOW CLR	BRG CLOSED	
BEAUFORT	040124	4/10/2007	22	2											2	
BEAUFORT	040182	4/10/2007	22	2											2	

Regulatory Sign Report for Division 3 All Notices

SIGNS TO ERECT										SIGNS TO REMOVE					
COUNTY	BRIDGE	NOTICE	AGE DAYS	WT LMT	DELIN	NARROW	ONE LANE	LOW CLR	BRG CLOSED	WT LMT	DELIN	NARROW	ONE LANE	LOW CLR	BRG CLOSED
CONSLAW	660080	4/19/2007	13	2						2					
CONSLAW	660144	4/19/2007	13	2						2					
PENDER	700016	4/16/2007	18	2						2					
SAMPSON	810011	4/18/2007	16	2						2					
SAMPSON	810012	4/18/2007	16	2						2					
SAMPSON	810014	4/18/2007	16	2						2					
SAMPSON	810034	4/18/2007	16	2						2					
SAMPSON	810038	4/16/2007	18	2						2					
SAMPSON	810080	3/1/2007	8	2						2					
SAMPSON	810072	4/18/2007	16	2						2					
SAMPSON	810077	3/2/2007	2	2						2					

Regulatory Sign Report for Division 3

All Notices

SIGNS TO ERECT										SIGNS TO REMOVE					
COUNTY	BRIDGE	NOTICE	AGE DAYS	WT LMT	DELIN	NARROW	ONE LANE	LOW CLR	BRG CLOSED	WT LMT	DELIN	NARROW	ONE LANE	LOW CLR	BRG CLOSED
OSISLOW	660090	4-19-2007	15	2						2					
OSISLOW	660144	4-19-2007	15	2						2					
PENDER	700016	4-16-2007	18	2						2					
SANDPSCON	810011	4-18-2007	16	2						2					
SANDPSCON	810012	4-18-2007	16	2						2					
SANDPSCON	810014	4-18-2007	16	2						2					
SANDPSCON	810034	4-18-2007	16	2						2					
SANDPSCON	810038	4-16-2007	18	2						2					
SANDPSCON	810040	5-1-2007	3	2						2					
SANDPSCON	810072	4-18-2007	16	2						2					
SANDPSCON	810077	5-2-2007	2	2						2					
SANDPSCON	810085	4-16-2007	18	2						2					
SANDPSCON	810105	4-19-2007	16	2						2					
SANDPSCON	810107	4-19-2007	16							2					
SANDPSCON	810143	4-19-2007	16	2						2					
SANDPSCON	810189	5-2-2007	2	2						2					
SANDPSCON	810189	5-1-2007	3	2						2					
SANDPSCON	810238	4-16-2007	18	2						2					
SANDPSCON	810248	5-1-2007	3	2						2					
SANDPSCON	810282	5-1-2007	3	2						2					
SANDPSCON	810335	4-26-2007	8	2						2					

Friday, May 04, 2007

Page 1 of 2

SIGNS TO ERECT										SIGNS TO REMOVE					
COUNTY	BRIDGE	NOTICE	AGE DAYS	WT LMT	DELIN	NARROW	ONE LANE	LOW CLR	BRG CLOSED	WT LMT	DELIN	NARROW	ONE LANE	LOW CLR	BRG CLOSED
SANDPSCON	810349	5-2-2007	2	2						2					
SANDPSCON	810361	5-2-2007	2	2						2					
SANDPSCON	810386	5-2-2007	2	2						2					
TOTALS				48						48					

Multiple Postings

**North Carolina Department of Transportation
Bridge Maintenance Unit**

**Bridge Analysis
Posting Consideration**

Bridge Number:
Route:
Analyst:

County:
Over/Under:
Date:

Memorandum to:

D. L. Bagwell
Bridge Maintenance Superintendent.

The Analysis Section offers the following alternatives for upgrading the posting on the above bridge for your consideration. Please advise of action taken by signing below and returning one (1) copy to the central office.

Bridge is presently posted:
Bridge will be posted:

If the work is done the bridge be

Action taken:
Post accordingly. Will not do work now.

Superintendent

Recommended work completed:
Date: _____

Supervisor: _____

Copy to file.

Need decision by _____ in order to meet compliance date of 90 days from inspection date to updating computer bridge inventory file as required by the FHWA. If work is performed, a 501 form indicating work carried out is also needed by the above date. If wheel guards are added, the dimensions of the wheel guards and clear roadway width are needed.

Instructions:

1. If no work will be done now, Superintendent should sign form to post accordingly and return copy to the central office.
2. If work is to be done, Superintendent will send a copy of the form to the Supervisor. When work is

SI&A Posting Consideration Procedures

Posting Considerations (PC) are received by the SI&A squad leaders from the Assistant State Bridge Inspection Engineer. Copies are mailed to the Division Bridge Engineer and the Bridge Maintenance Supervisor. The “need decision by” date is recorded on the calendar and the form is filed in the bridge folder. When the “need decision by” date arrives, the squad supervisor notifies the Bridge Maintenance Supervisor that the bridge posting is going to be lowered if the PC work has not been completed. If the supervisor indicates that the work will be completed within a week and a half, the time is extended for a week and a half. This is done to avoid sending two posting letters for the same bridge in one month.

When the complete PC form is received from the field, it is merged with the folder and sent to the analysis section with a note to review completed PC form and inspection report. When the folder with the PC and inspection are returned from analysis, both are processed.

Date: 07/16/2008

Memorandum To: H.A. Pope (Division 3 Engineer)

From: Daniel D. Holderman, P.E.
State Bridge Management Engineer, Bridge Management Unit

Subject: Change in Bridge Load Capacity for bridge 090206
in Brunswick county on route SR1105

PREVIOUSLY POSTED

- ☐ 1. Not Posted
2. Single Vehicle 22 Tons
Truck-Trailer Semi-Trailer 26 Tons
3. Single Vehicle Tons
TTST-Legal Gross Weight
4. Weight Limit Tons
- ☐ 5. No Trucks or Buses Allowed
- ☐ 6. Vehicle Limit 1 Truck or Bus
- ☐ 7. BRIDGE CLOSED
8. Weight Limit Persons

REMARKS:

New Bridge

INITIALS: adr

DDH/

Entered: 7/19/08
Cleared:

cc: Permit Unit
District Eng.
Div. Bridge Eng.
Bridge Maint. Sup.
Div. Traffic Eng.
Traffic Services Sup.
School Superintendent

CAPACITY TO BE POSTED

- ☒ 1. No Posting Required
2. Single Vehicle Tons
Truck-Trailer Semi-Trailer Tons
(Sign Type: R12-19)
3. Single Vehicle Tons
TTST-Legal Gross Weight
(Sign Type: R12-18)
4. Weight Limit Tons
(Sign Type: R12-1)
- ☐ 5. No Trucks or Buses Allowed
(Sign Type: R12-21)
- ☐ 6. Vehicle Limit 1 Truck or Bus
(Sign Type: R12-22)
- ☐ 7. BRIDGE CLOSED
(Sign Type: R11-2a)
8. Weight Limit Persons

ERECTED/REMOVED BY: Charles Thomas
DATE: 8-13-08

Return to Bridge Management Office, Raleigh when complete

REVISED: 2/1/08

2. Single Vehicle _____ Tons
Truck-Trailer Semi-Trailer _____ Tons

3. Single Vehicle _____ Tons
TTST-Legal Gross Weight

4. Weight Limit 18 Tons

☐ 5. No Trucks or Buses Allowed

☐ 6. Vehicle Limit 1 Truck or Bus

☐ 7. BRIDGE CLOSED

8. Weight Limit _____ Persons

REMARKS:

NEW TRUCKS AND PROGRAM

INITIALS: VPP

JHE/

Entered:

Cleared:

cc: Permit Unit

District Eng.

Div. Bridge Eng.

Bridge Maint. Sup.

Div. Traffic Eng.

Traffic Services Sup.

School Superintendent

2. Single Vehicle _____ Tons
Truck-Trailer Semi-Trailer _____ Tons
(Sign Type: R12-19)

3. Single Vehicle _____ Tons
TTST-Legal Gross Weight
(Sign Type: R12-18)

4. Weight Limit 15 Tons
(Sign Type: R12-1)

☐ 5. No Trucks or Buses Allowed
(Sign Type: R12-21)

☐ 6. Vehicle Limit 1 Truck or Bus
(Sign Type: R12-22)

☐ 7. BRIDGE CLOSED
(Sign Type: R11-2a)

8. Weight Limit _____ Persons

ERECTED/REMOVED BY:

B.G. Stokes

DATE: 12/28/2007

Return to Bridge Maint. Central Office when complete

REVISED: 8/23/07

BRIDGE MAINTENANCE UNIT

MAILING ADDRESS:
1565 MAIL SERVICE CENTER

RALEIGH NC 27699-1565

New Law

- agricultural products.
- c. ~~Is a four-axle combination with a gross weight that does not exceed the limit set in subdivision (b)(3) of this section. Does not exceed a single-axle weight of no more than 22,000 pounds, and a tandem-axle weight of no more than 42,000 pounds.~~ pounds, or a gross weight of 90,000 pounds."

SECTION 8. G.S. 20-118(k) reads as rewritten:

"(k) From September 1 through March 1 of each year, a vehicle which is equipped with a self-loading bed and which is designed and used exclusively to transport compressed seed cotton from the farm to a cotton gin may operate on the highways of the State, except interstate highways, with a tandem-axle weight not exceeding 44,000 50,000 pounds. Such vehicles shall be exempt from light-traffic road limitations only from point of origin on the light-traffic road to the nearest State-maintained road which is not posted to prohibit the transportation of statutory load limits. This exemption does not apply to restricted, posted bridge structures."

SECTION 9. G.S. 20-118(c)(15) reads as rewritten:

"(15) Subsections (b) and (e) of this section do not apply to a vehicle or vehicle combination that meets all of the conditions below, but all other enforcement provisions of this Article remain applicable:

- a. Is hauling wood residuals, including wood chips, sawdust, mulch, or tree bark from any site; is hauling raw logs to first market; or is transporting bulk soil, bulk rock, sand, sand rock, or asphalt millings from a site that does not have a certified scale for weighing the vehicle.
- b. Does not operate on an interstate highway, a posted light-traffic road, except as provided by subdivision (c)(5) of this section, or a posted bridge.

Mr. John F. Sullivan, III, PE
FHWA Division Administrator
310 New Bern Avenue, Suite 410
Raleigh, NC 27601

RE: 2008 Changes to NC General Statute 20-118 on Truck Weight Exemptions

Dear Mr. Sullivan:

This is in response to your letter to Secretary Lyndo Tippet, dated August 5, 2008, expressing concern over the North Carolina General Assembly approved legislative changes to the state's truck weight statutes, effective September 1, 2008, which will require all 14,000 of our non-interstate bridges to be re-rated.

We share your concern about these changes becoming law prior to us being able to re-evaluate them for weight posting consideration. Please be assured the department will be working diligently to see that our bridges are re-rated and posted as quickly as possible.

To address this issue, our plan of action to accomplish these re-ratings as follows:

1. The State Bridge Management Unit along with our Information Technology and Structure Design Units will be doing the re-rating work. Approximately 15 additional employees will be working full time and another 10-15 will be working part time to do the re-ratings, changing our NBIS database, and sending posting notices to Divisions.
2. Our computerized rating programs are currently being revised by the Information Technology Unit to reflect the new truck configurations and loads. We anticipate the testing of the revised programs will be complete by August 20, 2008.
3. The revised rating programs will be loaded on computers and the re-rating process is scheduled to begin by August 25, 2008.
4. Posting notices will be sent to Division Offices daily, as bridges are re-rated. Divisions have been alerted they can expect many postings changes over the next few months.

August 18, 2008

5. We are prioritizing our re-rating schedule to accomplish those bridges in the divisions that have the most agricultural activities; Divisions 1, 2, 3, 4, 6, and 8 first.
6. We plan on having the majority of our bridges re-rated by October 15, 2008, with posting signs changed and/or added by October 31, 2008.
7. We will keep FHWA advised of our progress by reporting to Thomas Drda of your office on a weekly basis, unless directed otherwise.

We appreciate your office's assistance in getting this issue resolved.

Sincerely,

William F. Rosser, PE
State Highway Administrator

Cc: Lyndo Tippet, Secretary
Susan Coward, Deputy Secretary
Steve Varnedoe, PE, Chief Engineer
Lacy D. Love, PE, Director of Asset Management
File

Prompt Actions



#17003 NE side of pole
close up 11/20/03

Figure 26 - Close up View of Tower Base Showing Crack in Toe of Weld to Baseplate



Figure 2 - Close-up View of Foundation of Collapsed High-mast Lighting Tower





23. FREQUENCY of INSPECTIONS

- A. Routine Inspections - include all above water inspections, machinery inspections on movable span structures, and ultrasonic inspections required on steel trusses and other selected critical design structures. Each bridge is to be inspected at regular intervals not to exceed two years in accordance with The AASHTO Manual for Condition Evaluation of Bridges.
- B. Underwater Inspections - These include all bridges over water with structural members underwater that cannot be evaluated during a routine above water inspection. Based on type of design, environment, and conditions; some structures, are required to be inspected on a two-year cycle. These structures are listed in the appendix of this document. All others are placed on a four-year cycle.
- C. Cantilever Sign Inspections - Vertical and Horizontal clearances are to be measured on a Two Year Cycle with a Complete Inspection (Including Grades) on a Four Year Cycle. The Detailed Inspections are to be scheduled every other cycle.
- D. High Mast Lighting Structure Inspections - A detailed complete inspection shall be performed on a Four Year Cycle.
- E. Overhead Span Type Sign Support Inspections - Vertical and Horizontal clearances shall be measured on a two-year Cycle. A complete inspection (including grades) is performed on an Eight-Year Cycle.
- F. Deck Evaluations and other special testing are performed on a upon request. The request comes are usually made by routine inspectors needing further investigation. Other requests come from various

North Carolina
Department of Transportation
Division of Highways
Bridge Maintenance Unit
Bridge Inspection

PROMPT ACTION


NOTICE

Bridge Inspection & Analysis

Sign No. **208028**

County : **CATAWBA**

Route : **I 40 & SR 1534**

NHS: 


Team Leader : **MD OSBORNE**

Date : **10/9/2006**

Assisted By : **W.A. KING**

MEMORANDUM TO: **SAM NICHOLS**
Traffic Services Engineer

A condition inspection of the subject sign was made **10/3/2006**. It is recommended that the conditions listed below be given prompt attention. An electronic notice of this memorandum is furnished for your use. Please send an electronic notice of the action taken as a result of these recommendations to the State Bridge Maintenance Engineer and one to your Superintendent. Retain one copy for your files.

CODE	PROMPT ACTION	PHOTOGRAPH
	<p>THERE IS ONLY 1/2 OF THE ANCHOR BOLT THREADED ON THE NUT</p> <p>SEE PAGE TWO</p>	
REPAIRS COMPLETED	By Bridge Maintenance Supervisor: _____ Action Taken :	Date : _____
Note: Attach a photo of repairs		
WILL NOT DO RECOMMENDED WORK AT THIS TIME		By Division Bridge Maintenance Engineer: _____ Date : _____

Notice to enable maintenance forces to consider other repairs along with the prompt-action condition. Make note on the "Prompt-Action form that "Maintenance Repairs" will be forwarded if the form can not be completed that day.

- C. Prompt-Action conditions should be graded as they exist at the time the inspection is made. Do not make judgements on when repairs will be made.
- D. Use sketches and/or digital photos to clarify conditions described in the notice.
- E. The structure should be closed to all traffic when the condition is critical. The Prompt-Action Notice should still be submitted.

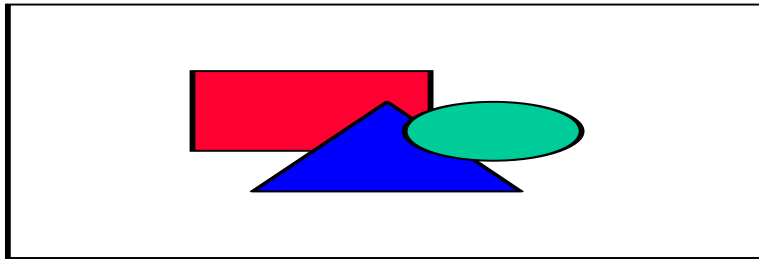
Office Prompt Action Procedures

Prompt Actions (PA) are sent to the office electronically. A copy is given to the Assistant State Bridge Maintenance Engineer/Inspections (ASBME/I) to determine if the defect is a prompt action or a maintenance need. Defects that are judged to be a prompt action are initialed by the ASBME/I. Copies are sent to the Division Bridge Engineer, Bridge Maintenance Supervisor, and the SI&A Squad Leader. If the defect involves a load-bearing member, A copy is sent to the Analysis and

Federal Prompt Action Requirements

- (1) Bridges with fracture critical members. In the inspection records, identify the location of FCMs and describe the FCM inspection frequency and procedures. Inspect FCMs according to these procedures.
- (2) Bridges requiring underwater inspections. Identify the location of underwater elements and include a description of the underwater elements, the inspection frequency and the procedures in the inspection records for each bridge requiring underwater inspection. Inspect those elements requiring underwater inspections according to these procedures.
- (3) Bridges that are scour critical. Prepare a plan of action to monitor known and potential deficiencies and to address critical findings. Monitor bridges that are scour critical in accordance with the plan.
- (f) *Complex bridges*. Identify specialized inspection procedures, and additional inspector training and experience required to inspect complex bridges. Inspect complex bridges according to those procedures.
- (g) *Quality control and quality assurance*. Assure systematic quality control (QC) and quality assurance (QA) procedures are used to maintain a high degree of accuracy and consistency in the inspection program. Include periodic field review of inspection teams, periodic bridge inspection refresher training for program managers and team leaders, and independent review of inspection reports and computations.
- (h) *Follow-up on critical findings*. Establish a statewide or Federal agency wide procedure to assure that critical findings are addressed in a timely manner. Periodically notify the FHWA of the actions taken to resolve or monitor critical findings.

§ 650.315 Inventory.



[Part Top](#)

- (a) Each State or Federal agency must prepare and maintain an inventory of all bridges subject to

Prompt Action Report for Division 1

COUNTY	BRIDGE	NOTICE	AGE DAYS	COMMENTS	ANTIC. REPAIR	REASON
BERTIE	070013	1/5/2007	119	MISSING NUTS AND SHEARED ANCHOR BOLTS	3/21/2007	No previous anticipated repair date. 1/19/07, 5/3/07.
BERTIE	070023	12/11/2006	144	RUSTED ANCHOR BOLTS WITH COMPLETE SECTION LOSS		5/3/07.
BERTIE	070034	12/11/2006	144	DECAYED CROWNSTRIP		5/3/07.
BERTIE	070038	10/4/2006	212	CONCRETE DECK SPALLED		5/3/07.
BERTIE	070040	12/11/2006	144	BROKEN NORTH RAIL POST IN SPAN 5		5/3/07.
BERTIE	070046	1/5/2007	119	DECAYED JOIST		5/3/07.
BERTIE	070143	7/19/2006	389	BROKEN JOIST AND DECAYED CAP		9/18/06, 5/3/07.
BERTIE	070148	7/17/2006	291	SECTIONS LOSS IN BEAMS AND RUSTED OR MISSING BOLTS		9/18/06, 5/3/07.
BERTIE	070159	10/10/2006	266	LOOSE GUARDRAIL		5/3/07.
CAMDEN	140007	12/4/2006	151	CRACKED AND SPALLED CHANNEL		5/3/07.
CAMDEN	140020	12/6/2006	149	BENTS 3&4 ENDS DETERIORATED		5/3/07.
CURRITUCK	260004	10/25/2006	191	DECAYED CAP AND CROWN STRIP		5/3/07.
CURRITUCK	260008	10/21/2006	185	CRACKED, SPALLED AND DELAMINATED CHANNEL		5/3/07.
CURRITUCK	260016	12/8/2006	147	SPALLED GIRDERS WITH EXPOSED CABLES		5/3/07.
CURRITUCK	260028	11/1/2006	184	DECAYED AND CRACKED JOIST		5/3/07.
DARE	270011	4/10/2006	389	BUMPER EAST SIDE OF BNT 145 HAS BROKEN LOOSE		Repair completed. This po has been repaired at least twice but new attachment method is being developed. 9/18/06, 5/3/07.
DARE	270011B	5/30/2006	339	FISHWALK MISSING TOP RAIL AND FABRIC ON FENCE. ALSO SPALLING AT POSTS.		Materials are on order. South side no work to be performed due to closed to public. 9/18/06, 5/3/07.
DARE	270011C	3/29/2006	401	BEARING PAD AT GIRDER 3 BENT 143 NOT IN PLACE		Bearing pads on order. 9/18/06, 5/3/07.

North Carolina
Department of Transportation
Division of Highways
Bridge Maintenance Unit
Bridge Inspection

PROMPT ACTION


NOTICE

Bridge Inspection & Analysis

Sign No. **240224**

County : **CRAVEN**

Route : **US 17 NB**

NHS: 

Team Leader : **D. Burford**

Date : **7/31/2006**

Assisted By : **G. HARRINGTON**

MEMORANDUM TO: **JIM EVANS**
Traffic Services Engineer

***SEE PA PAGE 2 FOR LOCATION**

A condition inspection of the subject sign was made **7/27/2006**. It is recommended that the conditions listed below be given prompt attention. An electronic notice of this memorandum is furnished for your use. Please send an electronic notice of the action taken as a result of these recommendations to the State Bridge Maintenance Engineer and one to your Superintendent. Retain one copy for your files.

CODE	PROMPT ACTION	PHOTOGRAPH
	FOUR (4) LOOSE ANCHOR BOLT NUTS ON WEST SIDE OF STRUCTURE.	

**REPAIRS
COMPLETED**

By Bridge Maintenance Supervisor: **J.F.EVANS, JR.**

Date : **8/2/2006**

**Action
Taken :**

Note:

Attach a photo of repairs

**WILL NOT DO RECOMMENDED
WORK AT THIS TIME**

By Division Bridge Maintenance Engineer: _____

Date : _____

Distribution:	Bridge Maintenance Supervisor	Original and 2 Copies
	Division Bridge Maintenance Engineer	1 Copy
	Division Engineer	1 Copy





North Carolina
Department of Transportation
Division of Highways
Bridge Maintenance Unit
Bridge Inspection

PROMPT ACTION


NOTICE

Bridge Inspection & Analysis

Sign No. **240248**

County : **CRAVEN**

Route : **US 70 WB**

NHS: 

Team Leader : **D. Burford**


Date : **7/31/2006**

Assisted By : **G. HARRINGTON**

MEMORANDUM TO: **JIM EVANS**
Traffic Services Engineer

***SEE PA PAGE 2 FOR LOCATION**

A condition inspection of the subject sign was made **7/27/2006**. It is recommended that the conditions listed below be given prompt attention. An electronic notice of this memorandum is furnished for your use. Please send an electronic notice of the action taken as a result of these recommendations to the State Bridge Maintenance Engineer and one to your Superintendent. Retain one copy for your files.

CODE	PROMPT ACTION	PHOTOGRAPH
	FOOTER IS COMPLETELY COVERED WITH SOIL PREVENTING INSPECTION. SOIL IS ALSO ENCROACHING ON BOTTOM STEEL PLATE AND BOLTS WHICH MAY LEAD TO CORROSION AND SECTION LOSS..	
REPAIRS COMPLETED	By Bridge Maintenance Supervisor: J.F. EVANS, JR. Action Taken :	Date : 8/2/2006
Note: Attach a photo of repairs		
WILL NOT DO RECOMMENDED WORK AT THIS TIME		By Division Bridge Maintenance Engineer: _____ Date : _____
Distribution:	Bridge Maintenance Supervisor Division Bridge Maintenance Engineer	Original and 2 Copies 1 Copy





North Carolina
Department of Transportation
Division of Highways
Bridge Maintenance Unit
Bridge Inspection

PROMPT ACTION


NOTICE

Bridge Inspection & Analysis

Sign No. **640077**

County : **NEW HANOVER**

Route : **US421 NB**

NHS: 

Team Leader : **D. Burford**


Date : **8/3/2006**

Assisted By : **G. HARRINGTON**

MEMORANDUM TO: **Jimmie Sessoms**
Traffic Services Engineer

***SEE PA PAGE 2 FOR LOCATION**

A condition inspection of the subject sign was made 8/3/2006. It is recommended that the conditions listed below be given prompt attention. An electronic notice of this memorandum is furnished for your use. Please send an electronic notice of the action taken as a result of these recommendations to the State Bridge Maintenance Engineer and one to your Superintendent. Retain one copy for your files.

CODE	PROMPT ACTION	PHOTOGRAPH
	FOOTER, SOLE PLATE, AND ANCHOR BOLTS ARE COMPLETELY COVERED WITH SOIL PREVENTING INSPECTION. SOIL IS ALSO IN CONTACT WITH BOTTOM PORTION OF POLE PREVENTING INSPECTION.	

**REPAIRS
COMPLETED**

Traffic Services Supervisor JL Sessoms

Date : **8/11/2006**

Action Graded soil away from footer, sole plate and anchor bolts. See Attachments

Taken :

Note:
Attach a photo of repairs

**WILL NOT DO RECOMMENDED
WORK AT THIS TIME**

By Division Bridge Maintenance Engineer: _____

Date : _____

Distribution: Bridge Maintenance Supervisor

Original and 2 Copies









North Carolina
Department of Transportation
Division of Highways
Bridge Maintenance Unit
Bridge Inspection

NOTICE

Bridge Inspection & Analysis

County : **FORSYTH**
Route : **US52NBL**
NHS: ☒

Team Leader :

D. Burford

Date : **3/1/2007**

Assisted By :

W. CULBERSON, T. EARP

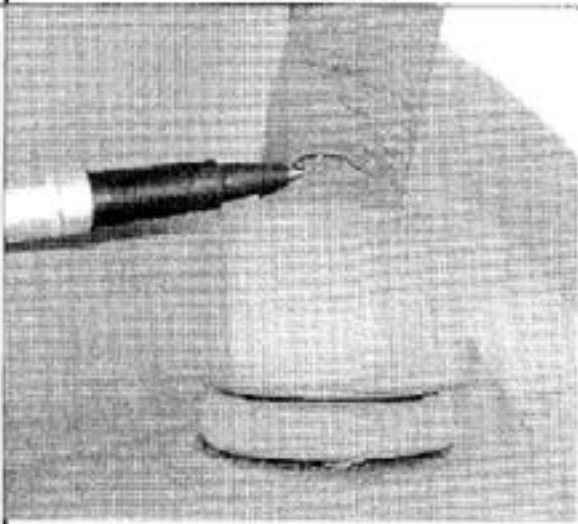
MEMORANDUM TO:

J. P. Couch

Traffic Services Engineer

***SEE PA PAGE 2 FOR LOCATION**

A condition inspection of the subject sign was made **2/28/2007**. It is recommended that the conditions listed below be given prompt attention. An electronic notice of this memorandum is furnished for your use. Please send an electronic notice of the action taken as a result of these recommendations to the State Bridge Maintenance Engineer and one to your Superintendent. Retain one copy for your files.

CODE	PROMPT ACTION	PHOTOGRAPH
	BENT AND CRACKED ANCHOR BOLT ON LEFT SIDE NORTH POLE	

**REPAIRS
COMPLETED**

By Bridge Maintenance Supervisor: _____ Date : _____

Action

Taken : **3-22-07 - Cut off bolt as requested**

Note:

Attach a photo of repairs

J. P. Couch
Dist. Traffic Eng.

**WILL NOT DO RECOMMENDED
WORK AT THIS TIME**

By Division Bridge Maintenance Engineer: _____

Date : _____

Distribution:	Bridge Maintenance Supervisor	Original and 2 Copies
	Division Bridge Maintenance Engineer	1 Copy
	Division Engineer	1 Copy

From: "Dan D. Holderman" <dholderman@dot.state.nc.us>
Organization: North Carolina Department of Transportation
To: Tom Koch PE <tkoch@dot.state.nc.us> , J.P. Couch, P.E." <jpcouch@dot.state.nc.us>
CC: Tim Earp <timearp@dot.state.nc.us> , John Jeffreys <johnjeffreys@dot.state.nc.us> ,
 Don Idol <didos@dot.state.nc.us>

Tom/JP - discussed this with Don Idol. He checked with the inspector who wrote the prompt action.
Apparently there are no cracks in the pole itself.

Our recommendation is to cut off the damaged bolt where it is cracked, grind the top flat (perpendicular to bolt) and have our special inspections group test the bolt for cracks. You will need to call Tim Earp at 919-835-8259 to be sure the preparation is done properly and schedule the testing.

Once we get the results of the bolt testing, we will know where we need to head with the repairs (if needed).

Doris M. Behrman

Tom Koch PE wrote:

> This came to my office from Division 9. I talked to JF Crouch,
> the Division 9 Traffic Services Engineer, and asked him to check
> with either of you all to find out the course of action.
>
> We are happy to help on this if you need but wanted you guys to
> know about it and handle it how you see fit.
> Please call to discuss if you need 250-4046. We can run numbers
> if you'd like or help in some other way-- just let us know.

```
>  
>  
> Subject: [Pvd: prompt action Forsyth Co. Sign 330611]  
> Date: Fri, 02 Mar 2007 15:45:02 -0500  
> From: "J.P. Couch, P.E." <jpcouch@dot.state.nc.us>  
> Organization: North Carolina Department of Transportation  
> To: Tom Koch PE <tkoch@dot.state.nc.us>  
>  
> Subject: prompt action Forsyth Co. Sign 330611  
> Date: Thu, 1 Mar 2007 11:50:28 -0500  
> From: dburford@dot.state.nc.us (Donald Burford)  
> To: jpcouch@dot.state.nc.us , johnjeffreys@dot.state.nc.us ,  
    timearp@dot.state.nc.us  
>  
> Please find the attached prompt action for sign 330611.  
> Thanks,  
> Don Burford  
> Wilson Special Inspections
```

```
>
> Prompt Action SIGN330611.xls
```

Name: Prompt Action SIGN330621.xls
Type: Microsoft Excel Worksheet



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION


MICHAEL F. EASLEY
GOVERNOR

LYNDO TIPPETT
SECRETARY

March 22, 2007

MEMORANDUM


TO: Henry Black, P.E.,
Assistant State Bridge Maintenance Engineer
Inspections

FROM: J. P. Couch, P.E., Division Traffic Engineer 

SUBJECT: Prompt Action Notice: Sign No 330611 (Forsyth)
Route US52NBL


This memo is to inform you that the appropriate action was taken on 3/22/07 to correct bent and cracked anchor bolt on left side north pole. The bolt was cut off as requested.

If you have any questions, please call.


Department of Transportation Division of Highways Bridge Maintenance Unit Bridge Inspection	Bridge Inspection & Analysis	Route : 140 & SR 1534 NHS: 
Team Leader :	MD OSBORNE	Date : 10/9/2006
Assisted By :	W.A. KING	

MEMORANDUM TO: **SAM NICHOLS**
Traffic Services Engineer

A condition inspection of the subject sign was made **10/5/2006**. It is recommended that the conditions listed below be given prompt attention. An electronic notice of this memorandum is furnished for your use. Please send an electronic notice of the action taken as a result of these recommendations to the State Bridge Maintenance Engineer and one to your Superintendent. Retain one copy for your files.

CODE	PROMPT ACTION	PHOTOGRAPH
	<div>FOOTER COVERED</div>	
<p>By Bridge Maintenance Supervisor: Clyde Mauney Date : 11/14/2006</p> <p>REPAIRS COMPLETED Action Uncovered footing also Replace Missing Covers on Pole</p> <p>Taken :</p> <p>Note: Attach a photo of repairs</p>		
<p>WILL NOT DO RECOMMENDED WORK AT THIS TIME By Division Bridge Maintenance Engineer: _____</p> <p>Date : _____</p>		

North Carolina
Department of Transportation
Division of Highways
Bridge Maintenance Unit
Bridge Inspection

NOTICE**Bridge Inspection & Analysis**County : **CATAWBA**Route : **I 40 & 321 CON.**NHS: 

Team Leader :

M.D. OSBORNEDate : **7/13/2006**

Assisted By :


A. KING

MEMORANDUM TO:

SAM NICHOLS

Traffic Services Engineer

A condition inspection of the subject sign was made **7/13/2006**. It is recommended that the conditions listed below be given prompt attention. An electronic notice of this memorandum is furnished for your use. Please send an electronic notice of the action taken as a result of these recommendations to the State Bridge Maintenance Engineer and one to your Superintendent. Retain one copy for your files.

CODE	PROMPT ACTION	PHOTOGRAPH
	LOOSE NUTS @ LEFT FOOTER	
REPAIRS COMPLETED		
By Bridge Maintenance Supervisor: <u>P.L. Eaker</u> Date : <u>7/20/2006</u> Action Tighten up Footer Bolts Taken :		
Note: Attach a photo of repairs		
WILL NOT DO RECOMMENDED WORK AT THIS TIME		
By Division Bridge Maintenance Engineer: _____ Date : _____		

Bridge 1 & A Form 10 (pg 1)
 Revised 6/15/1997

North Carolina
 Department of Transportation
 Division of Highways
 Bridge Maintenance Unit
 Bridge Inspection

PROMPT ACTION


NOTICE CONTINUED

Bridge Inspection & Analysis

Bridge No. 130389

County : Caldwell

Route : US 84 & NC 18

CODE	PROMPT ACTION	PHOTOGRAPH
	TREES IN THE RIGHT SIDE OF TOP CHORD	
CODE	PROMPT ACTION	PHOTOGRAPH
	<p>picture # 1173 # 1174</p> <p>Action Taken: 'cut tree limbs'</p> <p>completed 8.4.06</p> <p>By: A. R. Brown</p>	



































Bridge I & A Form 10 (86) F
Revised 6/13/1997


North Carolina
Department of Transportation
Division of Highways
Bridge Maintenance Unit
Bridge Inspection

PROMPT ACTION**NOTICE CONTINUED****Bridge Inspection & Analysis**

Bridge No. **17209043**

County : **CATAWBA**

Route : **I 40 & SR 1476**


CODE	PROMPT ACTION	PHOTOGRAPH
	TOP DOOR IS MISSING	
CODE	PROMPT ACTION	PHOTOGRAPH

Department of Transportation	Bridge Inspection & Analysis	Route : 140 & SR 1470
Division of Highways		NHS: <input checked="" type="checkbox"/>
Bridge Maintenance Unit		
Bridge Inspection		

Team Leader :	MD OSBORNE	Date : 10/26/2006
Assisted By :	W.A. KING	

MEMORANDUM TO: **SAM NICHOLS**
Traffic Services Engineer

A condition inspection of the subject sign was made **10/23/2006**. It is recommended that the conditions listed below be given prompt attention. An electronic notice of this memorandum is furnished for your use. Please send an electronic notice of the action taken as a result of these recommendations to the State Bridge Maintenance Engineer and one to your Superintendent. Retain one copy for your files.

CODE	PROMPT ACTION	PHOTOGRAPH																
	FOOTER IS COVERED THIS HML IS IN THE S.E. QUAD SEE PAGE #2																	
<table border="1"> <tr> <td rowspan="3">REPAIRS COMPLETED</td> <td>By Bridge Maintenance Supervisor: Clyde Mauney</td> <td>Date : 11/14/2006</td> </tr> <tr> <td>Action Uncovered footing</td> <td></td> </tr> <tr> <td>Taken :</td> <td></td> </tr> <tr> <td colspan="3"> Note: Attach a photo of repairs </td> </tr> <tr> <td colspan="3"> <table border="1"> <tr> <td rowspan="2">WILL NOT DO RECOMMENDED WORK AT THIS TIME</td> <td>By Division Bridge Maintenance Engineer: _____</td> </tr> <tr> <td>Date : _____</td> </tr> </table> </td> </tr> </table>			REPAIRS COMPLETED	By Bridge Maintenance Supervisor: Clyde Mauney	Date : 11/14/2006	Action Uncovered footing		Taken :		Note: Attach a photo of repairs			<table border="1"> <tr> <td rowspan="2">WILL NOT DO RECOMMENDED WORK AT THIS TIME</td> <td>By Division Bridge Maintenance Engineer: _____</td> </tr> <tr> <td>Date : _____</td> </tr> </table>			WILL NOT DO RECOMMENDED WORK AT THIS TIME	By Division Bridge Maintenance Engineer: _____	Date : _____
REPAIRS COMPLETED	By Bridge Maintenance Supervisor: Clyde Mauney	Date : 11/14/2006																
	Action Uncovered footing																	
	Taken :																	
Note: Attach a photo of repairs																		
<table border="1"> <tr> <td rowspan="2">WILL NOT DO RECOMMENDED WORK AT THIS TIME</td> <td>By Division Bridge Maintenance Engineer: _____</td> </tr> <tr> <td>Date : _____</td> </tr> </table>			WILL NOT DO RECOMMENDED WORK AT THIS TIME	By Division Bridge Maintenance Engineer: _____	Date : _____													
WILL NOT DO RECOMMENDED WORK AT THIS TIME	By Division Bridge Maintenance Engineer: _____																	
	Date : _____																	




Team Leader : **MD OSBORNE**

Date : **10/26/2006**

Assisted By : **W.A. KING**

MEMORANDUM TO: **SAM NICHOLS**
Traffic Services Engineer

A condition inspection of the subject sign was made **10/23/2006**. It is recommended that the conditions listed below be given prompt attention. An electronic notice of this memorandum is furnished for your use. Please send an electronic notice of the action taken as a result of these recommendations to the State Bridge Maintenance Engineer and one to your Superintendent. Retain one copy for your files.

CODE	PROMPT ACTION	PHOTOGRAPH
	FOOTER IS COVERED THIS HML IS IN THE S.W. QUAD SEE PAGE #2	

**REPAIRS
COMPLETED**

By Bridge Maintenance Supervisor: **Clyde Mauney**
Action **Uncovered Footing**
Taken :

Date : **11/14/2006**

Note:
Attach a photo of repairs

WILL NOT DO RECOMMENDED

By Division Bridge Maintenance Engineer



Team Leader :

MD OSBORNEDate : **10/26/2006**

Assisted By :


W.A. KING

MEMORANDUM TO:

SAM NICHOLS

Traffic Services Engineer

A condition inspection of the subject sign was made **10/23/2006**. It is recommended that the conditions listed below be given prompt attention. An electronic notice of this memorandum is furnished for your use. Please send an electronic notice of the action taken as a result of these recommendations to the State Bridge Maintenance Engineer and one to your Superintendent. Retain one copy for your files.

CODE	PROMPT ACTION	PHOTOGRAPH
	FOOTER IS COVERED THIS HML IS IN THE S.W. QUAD	

**REPAIRS
COMPLETED**

By Bridge Maintenance Supervisor:


Clyde Mauney

Date :

11/14/2006**Action** Uncovered Footing**Taken :****Note:****Attach a photo of repairs****WILL NOT DO RECOMMENDED
WORK AT THIS TIME**


By Division Bridge Maintenance Engineer: _____

Date :

North Carolina Department of Transportation Division of Highways Bridge Maintenance Unit Bridge Inspection	<u>Bridge Inspection & Analysis</u>	Route : I 40 & SR 1476 NHS: 
Team Leader :	<u>MD OSBORNE</u>	Date : <u>10/26/2006</u>
Assisted By :	<u>W.A. KING</u>	

MEMORANDUM TO: **SAM NICHOLS**
Traffic Services Engineer

A condition inspection of the subject sign was made **10/25/2006**. It is recommended that the conditions listed below be given prompt attention. An electronic notice of this memorandum is furnished for your use. Please send an electronic notice of the action taken as a result of these recommendations to the State Bridge Maintenance Engineer and one to your Superintendent. Retain one copy for your files.


CODE	PROMPT ACTION	PHOTOGRAPH
	<p>FOOTER IS COVERED</p> <p>THIS HML IS IN THE N.E. QUAD AT EXIT 128</p> <p>SEE PAGE #2</p>	

REPAIRS COMPLETED	By Bridge Maintenance Supervisor: <u>Clyde Mauney</u>	Date : <u>11/14/2006</u>
	Action Uncovered Footing Also Replace Covers Missing on Post Taken :	
Note: Attach a photo of repairs		
By Division Bridge Maintenance Engineer: _____		
Date : _____		

Department of Transportation Division of Highways Bridge Maintenance Unit Bridge Inspection	Bridge Inspection & Analysis	Route : 10-021-000 NHS: K
Team Leader :	M.D. OSBORNE	Date : 7/13/2006
Assisted By :	A. KING	

MEMORANDUM TO: **SAM NICHOLS**
Traffic Services Engineer

A condition inspection of the subject sign was made **7/13/2006**. It is recommended that the conditions listed below be given prompt attention. An electronic notice of this memorandum is furnished for your use. Please send an electronic notice of the action taken as a result of these recommendations to the State Bridge Maintenance Engineer and one to your Superintendent. Retain one copy for your files.


CODE	PROMPT ACTION	PHOTOGRAPH
	LOOSE NUTS @ TOP CHORD SPLICE SECOND FROM RIGHT. PAINTED ORANGE	

REPAIRS COMPLETED	By Bridge Maintenance Supervisor: P.L.Eaker	Date : 7/26/2006
	Action Tighten loose nuts on Top Chord Splice Taken :	
Note: Attach a photo of repairs		
WILL NOT DO RECOMMENDED WORK AT THIS TIME	By Division Bridge Maintenance Engineer: _____	
	Date : _____	

North Carolina
Department of Transportation
Division of Highways
Bridge Maintenance Unit
Bridge Inspection

INSPECTION
Bridge Inspection & Analysis

County : **CATAWBA**
Route : **U.S 321 SB**

NHS: 


Team Leader : **M.D. OSBORNE**

Date : **7/13/2006**

Assisted By : **A. KING**

MEMORANDUM TO: **SAM NICHOLS**
Traffic Services Engineer

A condition inspection of the subject sign was made **7/13/2006**. It is recommended that the conditions listed below be given prompt attention. An electronic notice of this memorandum is furnished for your use. Please send an electronic notice of the action taken as a result of these recommendations to the State Bridge Maintenance Engineer and one to your Superintendent. Retain one copy for your files.

CODE	PROMPT ACTION	PHOTOGRAPH
	TRREE LOOSE NUTS @ LEFT FOOTER	

**REPAIRS
COMPLETED**

By Bridge Maintenance Supervisor: **P.L. Eaker**

Date : **7/20/2006**

Action **Tighten up Footer Bolts**

Taken :

Note:

Attach a photo of repairs

**WILL NOT DO RECOMMENDED
WORK AT THIS TIME**

By Division Bridge Maintenance Engineer: _____

Date : _____



Team Leader :

D. BurfordDate : **12/19/2006**

Assisted By :

M. McNEESE, W. Culberson

MEMORANDUM TO:

John Grant

Traffic Services Supervisor

NOTE: SEE PA PAGES 1- 6


A condition inspection of the subject bridge was made **12/19/2006**. It is recommended that the conditions listed below be given prompt attention. An electronic notice of this memorandum is furnished for your use. Please send an electronic notice of the action taken as a result of these recommendations to the State Bridge Maintenance Engineer and one to your Superintendent. Retain one copy for your files.

CODE	PROMPT ACTION	PHOTOGRAPH
	SECOND I BAR ON NORTH SIDE OF STRUCTURE IS CRACKED AT THE SIGN TO UPPER CHORD UBOLT CONNECTION.	
REPAIRS COMPLET	By Bridge Maintenance Supervisor: _____ Action Taken :	Date : _____
Note: Attach a photo of repairs		
WILL NOT DO RECOMMENDED WORK AT THIS TIME	By Division Bridge Maintenance Engineer: _____	
		Date : _____
Distribution:	Bridge Maintenance Supervisor	Original and 2 Copies

Team Leader : **D. Burford** Date : **10/24/2006**
Assisted By : **G. HARRINGTON**

MEMORANDUM TO: **ANDY BROWN PE.**
Traffic Services Engineer

A condition inspection of the subject sign was made **10/16/2006**. It is recommended that the conditions listed below be given prompt attention. An electronic notice of this memorandum is furnished for your use. Please send an electronic notice of the action taken as a result of these recommendations to the State Bridge Maintenance Engineer and one to your Superintendent. Retain one copy for your files.

CODE	PROMPT ACTION	PHOTOGRAPH
	<p>4 LOOSE ANCHOR NUTS ON NORTH SIDE OF POLE.</p> <p>Pole No. HM1 STRUCTURE NO. 50503003 (FOUR OAKS EXIT OF I-95)</p>	

**REPAIRS
COMPLETED**

By Bridge Maintenance Supervisor: _____ Date : _____
Action Tightened by turn of nut method 10-30-06
Taken :

Note:
Attach a photo of repairs

**WILL NOT DO RECOMMENDED
WORK AT THIS TIME**

By Division Bridge Maintenance Engineer: _____
Date :

Distribution:	Bridge Maintenance Supervisor	Original and 2 Copies
	Division Bridge Maintenance Engineer	1 Copy
	Division Engineer	1 Copy
	Central Bridge Maintenance Office	1 Copy

NOTICE CONTINUED

County : Johnston

insportation
ays
ce Unit

Bridge Inspection & Analysis


Route : I-95/ SR 1178

PROMPT ACTION	PHOTOGRAPH
SIGN IS LOCATED ON US117(BYP)NB 0.25 MI N OF JCT NC581	
PROMPT ACTION	PHOTOGRAPH
CLOSE UP OF SIGN	

Division of Highways Bridge Maintenance Unit Bridge Inspection		BAGLEY RD NHS: L
Team Leader : <u>D. Burford</u>		Date : <u>10/24/2006</u>
Assisted By : <u>G. HARRINGTON</u>		

MEMORANDUM TO: **ANDY BROWN PE.**
 Traffic Services Engineer

A condition inspection of the subject sign was made **10/18/2006**. It is recommended that the conditions listed below be given prompt attention. An electronic notice of this memorandum is furnished for your use. Please send an electronic notice of the action taken as a result of these recommendations to the State Bridge Maintenance Engineer and one to your Superintendent. Retain one copy for your files.

CODE	PROMPT ACTION	PHOTOGRAPH
	5 LOOSE ANCHOR NUTS ON NORTH SIDE OF POLE. Pole No. HM3 (BAGLEYRD EXIT105 OF I-95)	

REPAIRS COMPLETED	By Bridge Maintenance Supervisor: _____	Date : _____
	Action Tightened by turn of nut method 10-30-06 Taken :	
Note: Attach a photo of repairs		
WILL NOT DO RECOMMENDED WORK AT THIS TIME		By Division Bridge Maintenance Engineer: _____
		Date : _____

Distribution:	Bridge Maintenance Supervisor	Original and 2 Copies
	Division Bridge Maintenance Engineer	1 Copy
	Division Engineer	1 Copy
	Central Bridge Maintenance Office	1 Copy

North Carolina
Department of Transportation
Division of Highw ays
Bridge Maintenance Unit
Bridge Inspection

NOTICE

Bridge Inspection & Analysis

County : **Johnston**
Route : **I-95/ SR 2339**
BAGLEY RD
NHS: **L**


Team Leader : **D. Burford**

Date : **10/24/2006**

Assisted By : **G. HARRINGTON**

MEMORANDUM TO: **ANDY BROWN PE.**
Traffic Services Engineer

A condition inspection of the subject sign was made **10/18/2006** . It is recommended that the conditions listed below be given prompt attention. An electronic notice of this memorandum is furnished for your use. Please send an electronic notice of the action taken as a result of these recommendations to the State Bridge Maintenance Engineer and one to your Superintendent. Retain one copy for your files.

CODE	PROMPT ACTION	PHOTOGRAPH
	<p>9 LOOSE ANCHOR NUTS ON NORTH SIDE OF POLE.</p> <p>Pole No. HM4</p> <p>(BAGLEYRD EXIT105 OF I-95)</p>	

**REPAIRS
COMPLETED**

By Bridge Maintenance Supervisor: _____ Date : _____

Action Tightened by turn of nut method 10-30-06

Taken :

Note:

Attach a photo of repairs


WILL NOT DO RECOMMENDED

By Division Bridge Maintenance Engineer: _____

Team Leader : **D. Burford** Date : **10/24/2006**
Assisted By : **G. HARRINGTON**

MEMORANDUM TO: **ANDY BROWN PE.**
Traffic Services Engineer

A condition inspection of the subject sign was made **10/23/2006**. It is recommended that the conditions listed below be given prompt attention. An electronic notice of this memorandum is furnished for your use. Please send an electronic notice of the action taken as a result of these recommendations to the State Bridge Maintenance Engineer and one to your Superintendent. Retain one copy for your files.

CODE	PROMPT ACTION	PHOTOGRAPH
	<p>5 LOOSE ANCHOR NUTS ON NORTH SIDE OF POLE.</p> <p>Pole No. HM2</p> <p>(TRUCK STOP RD EXIT106 OF I-95)</p>	

**REPAIRS
COMPLETED**

By Bridge Maintenance Supervisor: _____ Date : _____
Action **Tightened by turn of nut method 10-30-06**
Taken :

Note:
Attach a photo of repairs

**WILL NOT DO RECOMMENDED
WORK AT THIS TIME**

By Division Bridge Maintenance Engineer: _____

Date : _____

Distribution:	Bridge Maintenance Supervisor	Original and 2 Copies
	Division Bridge Maintenance Engineer	1 Copy
	Division Engineer	1 Copy
	Central Bridge Maintenance Office	1 Copy

Team Leader :

D. BurfordDate : 8/31/2006

Assisted By :

G. HARRINGTON


MEMORANDUM TO:

Jim Evans

Traffic Services Supervisor

***SEE PA PAGE 2 FOR LOCATION**

A condition inspection of the subject sign was made 8/30/2006. It is recommended that the conditions listed below be given prompt attention. An electronic notice of this memorandum is furnished for your use. Please send an electronic notice of the action taken as a result of these recommendations to the State Bridge Maintenance Engineer and one to your Superintendent. Retain one copy for your files.

CODE	PROMPT ACTION	PHOTOGRAPH
	3 UPPER CONNECTION BOLT NUTS ARE DETERIORATED. THE NUTS ARE LOCATED ON THE TOP OF THE CONNECTION WITH UPPER CHORDS. 1 NUT ON NORTH SIDE AND 2 ON SOUTH SIDE. These nuts should be replaced.	

**REPAIRS
COMPLETED**

By Bridge Maintenance Supervisor: Jim EvansDate : 9/12/2006**Action** NEW BOLTS INSTALLED.**Taken :****Note:****Attach a photo of repairs**

**WILL NOT DO RECOMMENDED
WORK AT THIS TIME**

By Division Bridge Maintenance Engineer: _____

Date : _____

Distribution:

Bridge Maintenance Supervisor

Original and 2 Copies

Division Bridge Maintenance Engineer

1 Copy

Team Leader : **D. Burford**

Date : **7/26/2006**

Assisted By : **G. HARRINGTON**

MEMORANDUM TO: **ANDY BROWN PE.**
Traffic Services Engineer

***SEE PA PAGE 2 FOR LOCATION**

A condition inspection of the subject sign was made **7/26/2006**. It is recommended that the conditions listed below be given prompt attention. An electronic notice of this memorandum is furnished for your use. Please send an electronic notice of the action taken as a result of these recommendations to the State Bridge Maintenance Engineer and one to your Superintendent. Retain one copy for your files.

CODE	PROMPT ACTION	PHOTOGRAPH
	3 LOOSE ANCHOR BOLTS ON WEST SIDE OF POLE	

**REPAIRS
COMPLETED**

By Traffic Services Supervisor: **J. Eric Boyette** Date : **7/31/2006**

Action Tighten bolts to appropriate spacing according to standard given by inspector
Taken : of project during installation.

Note:
Attach a photo of repairs

**WILL NOT DO RECOMMENDED
WORK AT THIS TIME**

By Division Bridge Maintenance Engineer: _____

Date : _____

Distribution:	Bridge Maintenance Supervisor	Original and 2 Copies
	Division Bridge Maintenance Engineer	1 Copy
	Division Engineer	1 Copy
	Central Bridge Maintenance Office	1 Copy

Why Inspectors Don't Make Repairs

1817 Signs

Special Inspections

- Sign Structures



Special Inspections

- Ultrasonic Testing



Bridges are Federally Mandated
Signs Not Federally Mandated

Special Inspections

- Deck Evaluation



Special Inspections

- Trusses



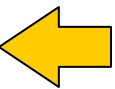
Moveable Bridges



Moveable Bridge Machinery



Cape Fear Memorial, Wilmington

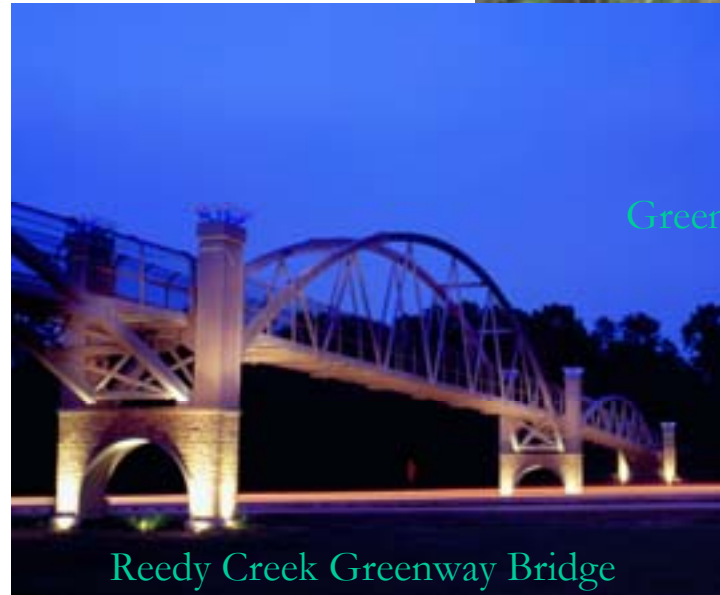


Fracture Critical

- Have Fracture Critical Members: those components of a bridge that are considered critical to the supporting structure of the bridge, failure of one of these members would be expected to result in collapse of the bridge.
- Require an in-depth visual, hands-on when possible inspection
- Performed by topside and special inspectors
- Certain types of structures
 - two girder
 - two truss
 - suspension spans
 - pin and hanger
 - eye-bar chain and hanger
 - tied arch
 - cross-girder and pier caps



Green River Bridge



Reedy Creek Greenway Bridge

2. Install the structural element on the anchor rods, and tighten nuts in compliance with steps 3, 4, and 5 below. Do not attach cantilever arms or overhead truss components to the vertical post until all of the top nuts and leveling nuts have been properly tightened on the anchor rods.
3. Install top nuts and washers. Install flat washers under the top and leveling nuts. Use beveled washers if the nuts cannot be brought into firm contact with the base plate. Lubricate threads of the anchor rods, nuts, and bearing surface of the nuts and tighten to a snug-tight condition with a spud wrench following a star pattern (using at least two increments). Snug-tight condition is defined as 20% to 30% of the verification torque (600 ft-lbs.). Lubricant shall be beeswax, stick paraffin, or other approved lubricant.
4. After the top nuts have been snug tightened, snug tighten the bottom nuts up to the base plate using the same procedure as described above. The base-plate must be in firm contact with both the top and bottom nuts to achieve the proper pretension in the anchor rods.
5. Prior to further turning of the nuts, mark the reference position of the top nut in the snug-tight condition by match marking each nut, bolt shank, and base plate. Use ink or paint that is not water-soluble.
6. Turn the top nuts in increments using the star pattern (using at least two full tightening cycles) to 1/6 of a turn. Use a torque wrench to verify that at least 600 ft-lbs. is required to further tighten the top nuts. At least 48 hours after the entire structure and any attachments are erected, use a torque wrench again to verify that at least 600 ft-lbs. is still required to tighten the top nuts. Verify that the leveling nuts remain in firm contact with the base plate.
7. Do not place non-shrink grout between the base plate and foundation. This will allow for future inspection of leveling nuts and for adequate drainage of moisture.

Guidelines for the Installation, Inspection, Maintenance and Repair of Structural Supports for Highway Signs, Luminaries, and Traffic Signals

1.0 INTRODUCTION

This document provides guidance for the installation, inspection, maintenance, and repair of structural supports for highway signs, luminaries and traffic signals. The primary purpose is to provide owners with information that can assist them in managing their inventory, identifying potential problem areas, and ensuring safe and satisfactory performance of these types of ancillary highway structures. The primary reason for compiling this guidance is increasing problems with wind induced vibration, fatigue, and even structural collapse of these support systems, as seen in Figure 1. Documented problems with these structures include questionable design and details, poor fabrication practices, and poor installation techniques.



Figure 1. Cantilever Sign Structure Failure.

- ◆ A hydraulic torque wrench (Figure 15) or
- ◆ A box end "slug" or "knocker" wrench with a 3 meter (10-ft), long pipe or extension handle.




Figure 15. A Hydraulic Torque Wrench Tightening Anchor Rod Nuts to Achieve Needed Rotation.

A condition inspection of the subject bridge was made
the conditions listed below be given prompt attention. An electronic notice of this memorandum is furnished
for your use. Please send an electronic notice of the action taken as a result of these recommendations to
the State Bridge Maintenance Engineer and one to your Superintendent. Retain one copy for your files.

07/10/2006

It is recommended that

CODE	PROMPT ACTION	PHOTOGRAPH
	ANCHOR BOLTS LOOSE	
REPAIRS COMPLETE	By Bridge Maintenance Supervisor: <u>R.E. Jorgensen</u> Action: <u>Tighten loose anchor bolts with 24" pipe wrench + 4' pr. pipe 2. 300 lbs more power is the work</u> Note: <u>Attach a photo of repairs</u>	Date: <u>6/22/06</u> <u>HAB</u> <u>834</u>
WILL NOT DO RECOMMENDED WORK AT THIS TIME	By Division Bridge Maintenance Engineer: _____ Date: _____	
Distribution:	Bridge Maintenance Supervisor Division Bridge Maintenance Engineer Division Engineer	Original and 2 Copies 1 Copy 1 Copy

NCHRP

REPORT 469

NATIONAL
COOPERATIVE
HIGHWAY
RESEARCH
PROGRAM

Fatigue-Resistant Design of Cantilevered Signal, Sign, and Light Supports

TRANSPORTATION RESEARCH BOARD

NATIONAL RESEARCH COUNCIL

Regulatory Sign Report for Division 4

All Notices

COUNTY	BRIDGE	NOTICE	AGE DAYS	SIGNS TO ERECT					SIGNS TO REMOVE						
				WT LMT	DELYN	NARROW	ONE LANE	LOW CLR	BRG CLOSED	WT LMT	DELYN	NARROW	ONE LANE	LOW CLR	BRG CLOSED
EDGEcombe	320006	4/9/2007	23			1									
EDGEcombe	320029	10/30/2006	100							1					
EDGEcombe	320043	4/20/2007	14	2											
EDGEcombe	320054	4/17/2007	17	2											
EDGEcombe	320063	2/14/2007	79	2						2					
EDGEcombe	320087	4/23/2007	11			1									
EDGEcombe	320113	2/12/2007	81	2											
HALIFAX	410024	4/19/2007	15	2						2					
JORDNTON	500045	10/16/2006	200	2											
JORDNTON	500053	3/5/2007	60			1								2	
JORDNTON	500450	3/21/2007	44						1						
NASH	630036	4/9/2007	25	2						2					
NASH	630065	9/13/2006	233	2						2					
NASH	630076	3/23/2007	42	2						2					
NASH	630077	4/9/2007	25	2						2					
NASH	630080	3/2/2007	63	2						2					
NASH	630091	3/25/2007	42	2						2					
NASH	630131	4/9/2007	23	2						2					
NASH	630132	4/9/2007	23	2						2					
NASH	630143	3/23/2007	42	2						2					
NASH	630155	3/29/2007	36	2						2					
NASH	630160	4/9/2007	25	2						2					

COUNTY	BRIDGE	NOTICE	AGE DAYS	SIGNS TO ERECT					SIGNS TO REMOVE						
				WT LMT	DELYN	NARROW	ONE LANE	LOW CLR	BRG CLOSED	WT LMT	DELYN	NARROW	ONE LANE	LOW CLR	BRG CLOSED
NASH	630224	4/9/2007	25	2							2				
NASH	630277	11/29/2006	130								2				
NASH	630284	4/9/2007	25								2				
WAYNE	950059	5/1/2007	3			1									
WILSON	970061	12/12/2006	143						1					1	
WILSON	970219	8/23/2006	256	2							2				
TOTALS				10	4			2			10			3	

Regulatory Sign Report for Division 5

All Notices

COUNTY	BRIDGE	NOTICE	AGE DAYS	SIGNS TO ERECT						SIGNS TO REMOVE					
				WT LMT	DELIN	NARROW	ONE LANE	LOW CLR	BRG CLOSED	WT LMT	DELIN	NARROW	ONE LANE	LOW CLR	BRG CLOSED
DURHAM	110001	4-16-2007	16		2										
DURHAM	110042	4-18-2007	16						2						
DURHAM	110084	8-28-2006	249	2						2					
FRANKLIN	140013	2-9-2007	14							2					
FRANKLIN	140132	4-30-2007	4		1										
GRANTVILLE	180020	2-27-2007	66	2						2					
GRANTVILLE	180224	3-29-2007	36	2						2					
GRANTVILLE	180225	4-19-2007	15	2						2					
GRANTVILLE	180227	3-27-2007	36	2						2					
GRANTVILLE	180240	5-1-2007	3	2						2					
GRANTVILLE	180241	2-6-2007	87	2						2					
PERSON	720002	7-14-2006	294	2						2					
PERSON	720021	4-12-2007	22	2						2					
PERSON	720031	4-16-2007	18	2						2					
PERSON	720188	7-14-2006	294	2						2					
WAZE	910065	7-7-2006	301							2					
WAZE	910133	7-26-2006	289	2						2					
WAZE	910248	12-12-2006	143	2						2					
WAZE	910311	11-3-2006	182	1											
TOTALS				27	2				2	36					

Regulatory Sign Report for Division 6

All Notices

COUNTY	BRIDGE	NOTICE	SIGNS TO ERECT						SIGNS TO REMOVE						
			AGE DAYS	WT LMT	DELIN	NARROW	ONE LANE	LOW CLR	BRG CLOSED	WT LMT	DELIN	NARROW	ONE LANE	LOW CLR	BRG CLOSED
BLADEN	000010	12/21/2006	134	0											
BLADEN	000030	1-9-2007	111	0											
BLADEN	000047	2-13-2007	80	0											
BLADEN	000085	6/29/2006	309			0									
BLADEN	000150	6/29/2006	309			1									
BLADEN	000166	6/29/2006	309			4									
BLADEN	000189	6/29/2006	309	1											
BLADEN	000175	6/29/2006	309			1									
BLADEN	000194	6/29/2006	309			2									
BLADEN	000212	6/29/2006	309			4									
BLADEN	000213	6/29/2006	309			2									
BLADEN	000215	6/29/2006	309			2									
BLADEN	000216	6/29/2006	309			3									
COLUMBUS	230057	4/10/2007	24			2									
COLUMBUS	230047	5/14/2006	269	2						2					
COLUMBUS	230069	9/19/2006	127	2						2					
COLUMBUS	230098	4/4/2007	30			1									
COLUMBUS	230112	5/24/2006	259	1											
COLUMBUS	230144	4/12/2007	33	1											
COLUMBUS	230211	5/24/2006	259			1									
COLUMBUS	230232	4/17/2007	17			4									
COLUMBUS	230246	4/17/2007	17	1											

COUNTY	BRIDGE	NOTICE	SIGNS TO ERECT							SIGNS TO REMOVE						
			AGE DAYS	WT LMT	DELIN	NARROW	ONE LANE	LOW CLR	BRG CLOSED	WT LMT	DELIN	NARROW	ONE LANE	LOW CLR	BRG CLOSED	
COLUMBUS	230210-1	5/18/2006	351		4											
COLUMBUS	230271-1	5/18/2006	351		4											
COLUMBUS	230282-1	5/18/2006	351		2											
COLUMBUS	230289-1	5/22/2006	347	1	2											
COLUMBUS	230290	1/12/2007	112	2						2						
COLUMBUS	230291	8/16/2006	263	2						2						
COLUMBUS	230294	8/16/2006	263	2						2						
COLUMBUS	230301	3/29/2007	36	1												
COLUMBUS	230303-1	5/18/2006	351		4											
COLUMBUS	230314-1	5/18/2006	351		3											
COLUMBUS	230327	3/21/2007	44		2											
COLUMBUS	230327-1	5/18/2006	351		4											
COLUMBUS	230373-1	3/18/2008	851		3											
COLUMBUS	230363	3/28/2007	36		2											
COLUMBUS	230375-1	5/18/2006	351		2											
COLUMBUS	230397	8/24/2006	218		2											
COLUMBUS	230398	8/24/2006	218		2											
CUMBERLAND	210064	1/28/2007	83		4											
CUMBERLAND	210116	3/26/2007	39	1	4											
CUMBERLAND	210117	3/6/2007	39	1	2											
HARNETT	400160	8/19/2006	227	2						2						
ROBESON	770008	2/13/2007	80		2											
ROBESON	770123	4/16/2007	18	2						2						
ROBESON	770130	9/11/2006	281							2						
ROBESON	770161	9/14/2006	282	2												

			SIGNS TO ERECT							SIGNS TO REMOVE						
COUNTY	BRIDGE	NOTICE	AGE	WT	ONE LOW BRG					WT	ONE LOW BRG					
			DAYS	LMT	DELIN	NARROW	LANE	CLR	CLOSED	LMT	DELIN	NARROW	LANE	CLR	CLOSED	
ROBESON	770173	4/18/2007	16	2						2						
ROBESON	770223	4/18/2007	16	2						2						
ROBESON	770434	4/28/2007	8	2						2						
TOTALS				28	77					22						

Regulatory Sign Report for Division 10
All Notices

			SIGNS TO REECT						SIGNS TO REMOVE						
COUNTY	BRIDGE	NOTICE	AGE LMT	WT LMT	DELIN	NARROW	ONE LANE	LOW CLR	BRG CLOSED	WT LMT	DELIN	NARROW	ONE LANE	LOW CLR	BRG CLOSED
ADISON	000038	3/30/2007	35						1						
ADISON	000050	6/16/2007	18			2									
ADISON	000002	3/26/2007	39	1											
ADISON	000023	6/2/2007	32			1									
CABARRUS	120091	3/12/2007	33			4									
CABARRUS	120163	6/26/2007	8	2						2					
CABARRUS	120203	3/14/2007	33			2									
CABARRUS	120214	3/13/2007	30			4									
CABARRUS	120227	6/23/2007	8	2						2					
MECKLENBURG	190018	4/13/2007	28							2					
TOTALS			6	2	2			1		6					

Regulatory Sign Report for Division 11
All Notices

			SIGNS TO ERECT							SIGNS TO REMOVE						
COUNTY	BRIDGE	NOTICE	AGE DAYS	WT LMT	DELIN	NARROW	ONE LANE	LOW CLR	BRC CLOSED	WT LMT	DELIN	NARROW	ONE LANE	LOW CLR	BRC CLOSED	
AERY	050133	5/1/2007	3		1		1									
			TOTALS		1		1									

Regulatory Sign Report for Division 12
All Notices[illegible]

Regulatory Sign Report for Division 13

All Notices

COUNTY	BRIDGE	NOTICE	AGE DAYS	WT LMT	SIGNS TO ERECT			ONE LANE	LOW CLR	BRG CLOSED	SIGNS TO REMOVE			ONE LANE	LOW CLR	BRG CLOSED
					DELIN	NARROW					WT LMT	DELIN	NARROW			
SUSSEX	100212	8-18-2006	238	2							2					
SUSSEX	100240	4-17-2007	17		2											
SUSSEX	100362	10-3-2006	213	2							2					
SUSSEX	100370	2-23-2007	30	2												
SUSSEX	100394	10-31-2006	185	1	1											
SUSSEX	100424	5-1-2007	3		4											
SUSSEX	100660	4-13-2007	21					1								
MADISON	160316	8-12-2006	234	1												
MADISON	160322	2-19-2007	34	2							2					
MADISON	160332	2-19-2007	34	2							2					
MITCHELL	600299	10-18-2006	188	2							2					
RUTHERFORD	800050	3-7-2007	38		2											
RUTHERFORD	800053	3-7-2007	38		3											
RUTHERFORD	800075	1-23-2007	161		1											
RUTHERFORD	800095	4-12-2007	22	2							2					
RUTHERFORD	800096	4-12-2007	22	1												
RUTHERFORD	800114	4-24-2007	18	2												
RUTHERFORD	800133	4-23-2007	11												1	
RUTHERFORD	800372	4-25-2007	9			2										
TOTALS				19	10	2		1			11				1	

Regulatory Sign Report for Division 14

All Notices

COUNTY	BRIDGE	NOTICE	AGE DAYS	WT LMT	SIGNS TO ERECT			ONE LANE	LOW CLR	BRG CLOSED	SIGNS TO REMOVE			ONE LANE	LOW CLR	BRG CLOSED
					DELIN	NARROW					WT LMT	DELIN	NARROW			
RENDERSON	440042	2-19-2007	34	1				1								
TRANSYLVANIA	870027	3-26-2007	89								2					
TRANSYLVANIA	870181	3-12-2007	53										1			
TOTALS				1				1			2		1			

<http://www.fhwa.dot.gov/bridge/signinspection.pdf>

<ftp://165.206.203.34/dotmain/bridges/Iowatowers22Sept.pdf>

<ftp://165.206.203.34/dotmain/bridges/HighMastFinalReport.pdf>